Title: MEDICAL IMAGING DEVICE AND METHOD

Serial No. 10/626,157

IN THE CLAIMS

1. (Previously Presented) An imaging system, comprising:

a sensor ring having a plurality of sensors mounted thereon to gather image data of external features of an object within the ring; and

a motor operatively connected to the sensor ring to move the ring about its longitudinal axis to rotate the ring about an object within the ring.

- (Original) The imaging system of claim 1, and further comprising:
 a second motor to move the ring translationally along the longitudinal axis.
- 3. (Previously Presented) An imaging system, comprising: a first imaging device for imaging an external surface of an object to be imaged; a second imaging device for imaging internal features of the object to be imaged; and a processor operatively connected to the first imaging device and to the second imaging device, the processor to combine images from the first imaging device and the second imaging device to create a three dimensional image of the external and internal features of the object to be imaged.
- 4. (Previously Presented) The imaging system of claim 3, wherein the first imaging device comprises:
- a sensor ring having a plurality of sensors mounted thereon to gather external image data from an object within the ring; and
- a motor operatively connected to the sensor ring to move the ring about its longitudinal axis to rotate the ring about an object within the ring.
- 5. (Previously Presented) The imaging system of claim 4, wherein the first imaging system further comprises:
 - a second motor to move the ring translationally along the longitudinal axis.
- 6. (Previously Presented) The imaging system of claim 3, wherein the second imaging device is a magnetic resonance imaging device.

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7. (Previously Presented) The imaging system of claim 3, wherein the second imaging device is an ultrasound device.

- 8. (Previously Presented) The imaging system of claim 3, wherein the second imaging device is an X-ray device.
- (Original) A method of imaging, comprising:
 placing a subject to be imaged into a sensor ring;
 rotating the sensor ring about a first rotational axis to image the circumference of the subject;

translating the sensor ring about a translational axis to image the length of the subject; sensing subject external image information with sensors of the sensor ring; and processing received image information in a processor to generate a three dimensional representation of the subject.

- 10. (Original) A method of imaging, comprising: obtaining a three dimensional internal image of an object; obtaining a three dimensional external image of the object; processing the images in a processor; and combining the internal and external images to form a composite image.
- 11. (Original) The method of claim 10, and further comprising: displaying the composite image on a display device.
- 12. (Original) The method of claim 10, and further comprising:
 manipulating the image to view the image from a desired angle or angles; and
 printing any image views desired.
- 13. (Previously Presented) A method of imaging a subject, comprising:

 providing a sensor ring having a plurality of sensors mounted thereon for sensing an object within the sensor ring;

 rotating the sensor ring around the object;

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providing a linear axis along which the sensor ring travels, the linear axis normal to the angular rotation of the sensor ring;

processing data relative to known position both rotationally and linearly to create a three dimensional image of the external features of the object.

- 14. (Original) The method of claim 13, and further comprising: saving the image in a machine readable format.
- 15. (Original) The method of claim 13, and further comprising: combining the image with a magnetic resonance image.
- 16. (Original) The method of claim 13, and further comprising: combining the image with an ultrasound image.
- 17. (Original) The method of claim 13, and further comprising: overlaying the image with a MRI image; and saving a combined image in a machine readable format.
- 18. (Previously Presented) An imaging device, comprising: means for sensing external parameters of an object; means for rotating the sensing means around the circumference of an object; and means for moving the sensing means laterally along a length of the object.
- 19. (Previously Presented) A medical imaging device, comprising: a computer having a processor;
- a sensor ring having a plurality of sensors, each of the sensors operatively connected to provide sensing data of external features of an object to the computer, wherein the sensor ring is movable in a first direction that rotates the ring substantially about an axis normal to the direction of rotation, and in a second direction that translates the ring linearly along the axis.
- 20. (Original) The medical imaging device of claim 19, wherein the sensors are ultrasonic sensors.

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21. (Original) The medical imaging device of claim 19, wherein the processor receives the sensor data and creates a three dimensional image of an object within the sensor ring.

- 22. (Original) The medical imaging device of claim 19, and further comprising: a printer operatively connected to the computer, the printer to print generated images.
- 23. (Original) The medical imaging device of claim 19, wherein the sensor ring is moved with at least one motor.
- 24. (Original) A method of generating an image of an object, comprising: obtaining an internal image of the object; obtaining a three dimensional external image of the object; overlaying the internal image with the three dimensional external image; and saving the combined image in a machine readable format.
- 25. (Original) The method of claim 24, wherein saving comprises saving the combined image as a plurality of individual images.
- 26. (Original) The method of claim 25, and further comprising: selecting one or more of the plurality of individual images for viewing.